

Claims

We claim:

1. A method comprising the steps of:
5 at an access point:
receiving a multicast packet intended for a particular multicast group;
determining whether there is at least one wireless subscriber unit
belonging to the particular multicast group and associated with the access point;
and
10 rebroadcasting the multicast packet over a wireless segment only if there is
at least one wireless subscriber unit belonging to the particular multicast group
and associated with the access point.
2. The method of claim 1 further comprising the step of rebroadcasting the
15 multicast packet over a wired segment.
3. The method of claim 1 wherein the step of determining comprises
consulting a storage medium, wherein the storage medium comprises a list of
wireless subscriber units along with their membership to at least one multicast
20 group and whether the subscriber unit is currently associated with the access
point.
4. The method of claim 3 further comprising the step of updating the storage
medium by detecting Internet Group Management Protocol (IGMP) messages
25 from wireless subscriber units.
5. The method of claim 3 further comprising the step of updating the storage
medium by receiving Inter-Access Point Protocol (IAPP) messages from at least a
second access point.
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6. The method of claim 3 further comprising updating the storage medium by removing an entry from the storage medium based on inactivity from a wireless subscriber unit after a predetermined period of time lapses.

5 7. The method of claim 1 wherein the step of rebroadcasting occurs if there is at least one wireless subscriber unit belonging to the particular multicast group and associated with the access point that did not originate the multicast packet.

8. A method comprising the steps of:
10 at an access point:
receiving a multicast packet intended for a particular multicast group;
rebroadcasting the multicast packet over a wired segment; and
rebroadcasting the multicast packet over a wireless segment if the
multicast packet signals an automatic rebroadcast of the multicast packet over the
15 wireless segment; otherwise, rebroadcasting the multicast packet over the wireless
segment only if there is at least one wireless subscriber unit belonging to the
particular multicast group and associated with the access point that did not
originate the multicast packet.

20 9. The method of claim 8 wherein a bit in the multicast packet signals the automatic rebroadcast of the multicast packet.

10. The method of claim 8 wherein a field in the multicast packet signals the automatic rebroadcast of the multicast packet.

25 11. The method of claim 8 wherein the multicast packet is originated from a wireless subscriber unit.

12. A method comprising the steps of:
- at a subscriber unit:
 - generating a multicast packet intended for a particular multicast group;
 - setting a first value within the multicast packet if the subscriber unit
 - 5 desires a rebroadcast of the multicast packet; otherwise setting a second value within the multicast packet; and
 - transmitting the multicast packet.